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SECTION III.—FORECASTS.

FORECASTS AND WARNINGS FOR JULY, 1917.

By H. C. FRANKENFIELD, Supervising Forecaster.

[Dated Washington, Aug. 11, 1917.]

GENERAL PRESSURE DISTRIBUTION OVER THE NORTHERN HEMISPHERE EXCEPT EUROPE AND INTERIOR ASIA.

Pressure was generally high over the Pacific Ocean, although only slightly so over the southern portion during the first half of July, 1917. Over the Aleutian Islands there were several well-defined periods of alternate low and high pressure, the former prevailing at the beginning and end of the month. Over Alaska moderately low pressure predominated, although during the second decade the average was slightly below the normal. The same general distribution prevailed over northwestern Canada and the northwestern portion of the United States in less pronounced form, but over the remainder of Canada and the United States, except the Canadian Maritime Provinces and the coast States, there was an excess of high pressure during the second half of the month, except during the last few days. Over the Atlantic Ocean high pressure ruled with only a few days of normal conditions.

WASHINGTON DISTRICT.

There were no storms during the month that justified the display of storm warnings, and none was ordered.

Small-craft warnings were displayed locally on July 1 and 29 on the Great Lakes for moderately strong winds, mainly thundersqualls, and on July 11 from Sandy Hook, N. J., to Boston, Mass.

On July 6 there were some indications of a disturbance south of the Island of Barbados, and the usual cautionary advices were issued. Later developments showed that a very moderate disturbance moved northwestward and disappeared some distance south of the Island of Santo Domingo, the observer at the city of Santo Domingo reporting some damage off the coast.

WARNING FROM OTHER DISTRICTS.

Chicago forecast district.—No warnings were issued during July, 1917, except a local small-craft warning at Chicago on the morning of the 1st, and warnings of possible frosts in the cranberry districts of Wisconsin on the 2d and 3d.—*Charles L. Mitchell, Assistant Forecaster.*

New Orleans forecast district.—The summer type of weather prevailed, without unusual features during July, 1917. The winds on the coast were generally light to moderate, except on July 21, when a velocity of 46 miles was recorded at Corpus Christi, Tex., during

a local storm of which no indication appeared on the weather maps.

No warnings were issued during the month.—*R. A. Dyke, Assistant Forecaster.*

Denver forecast district.—No special warnings were issued during July, 1917. The month was remarkably dry over practically the entire district, although there were only three 12-hour periods during the month for which thunderstorms were not reported from some part of the district. With few exceptions these storms were unattended by appreciable rainfall.

There was a remarkable absence of high winds and no fire-weather warnings were issued.—*Frederick H. Brandenburg, District Forecaster.*

San Francisco forecast district.—During July, 1917, pressure was persistently high over Dutch Harbor and also along the Oregon, Washington, and British Columbia coasts. Barometric maxima along the north Pacific coast moved intermittently and slowly north or south, and every few days sent out an offshoot that crossed the Rocky Mountains and then disintegrated or drifted slowly eastward usually changing in form and decreasing.

As an offshoot separated from the parent high, a barometric trough would extend from British Columbia or Alberta south through California to southern Arizona, and the weather, especially in the northern portion of the district, would become unsettled with light showers in the valleys and heavy showers in the mountains. As a whole the month was very dry and warm. In Nevada the highest temperatures of record occurred at Reno on the 11th and at Tonopah on the 12th.

Fire-weather warnings were issued on July 10, 13, 25, and 31. Those on the 10th and 13th were well verified; the one on the 31st was verified over the greater portion of the district, but not in all places. The warning issued on the 25th was a failure, and on the following day all recipients were notified of the sudden change in pressure, which, besides nullifying the warning, caused much less hazardous fire-weather conditions.

No storm warning was ordered, and none was needed.

The hot and dry weather that prevailed during a considerable portion of the month, while a source of damage and injury in many respects, nevertheless afforded several excellent opportunities for illustrating the utility and value of the fire-weather warnings that were issued. As previously stated, all but one of these warnings were well verified, and, while there were many fires, none was of consequence, and written expressions of commendation from forest supervisors, fire wardens, and others, regarding the warnings, were numerous.—*E. A. Beals, District Forecaster.*